Which of these 13 mangrove species did you see during your visit?

Avicennia alba
(Api-api, Sia-sia)

Avicennia lanata
(Api-api, Sia-sia)

Avicennia marina
(Api-api, Sia-sia putih)

Bruguiera gymnorrhiza
(Lindur, Tanjang)

Ceriops tagal
(Mentigi, Lindur, Parum)

Excocaria agalloca
(Buta-buta, Madengan, Wareji)

Lumnitzera racemosa
(Terutun, Kedukduk)

Rhizophora mucronata
(Bakau hitam, Bakau gandul)

Rhizophora stylosa
(Bakau kurap, Tongke besar)

Rhizophora apiculata
(Bakau kacang, Jangkah)

Xylocarpus granatum
(Banang-banang, Nyirih)

Xylocarpus molluccensis
(Banang-banang, Jombok)

Sonneratia alba
(Prapat, Pedada)

What Can You Do?

You can help protect mangroves by supporting coastal and marine conservation efforts. Join the next beach clean up in your area, reduce your use of plastics, and support communities who are protecting mangrove ecosystems.

© Rili Djohani / CTC

For more information

Wayan Sukitra
Surya Mandiri Community Leader
Jungutbatu Village, Nusa Lembongan
Ph/WA: +62 813 379 18426

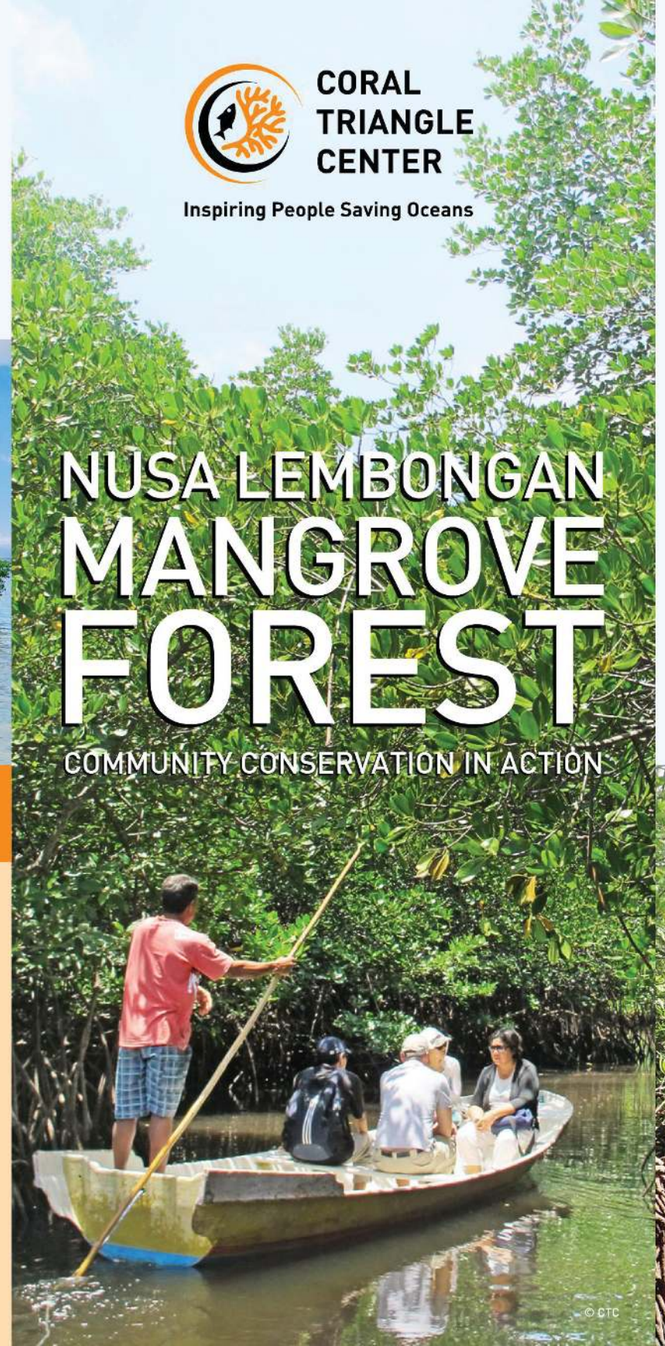
Wira Sanjaya
Nusa Penida MPA Project Leader
Coral Triangle Center
Jl. BetNgandang II, 88-89, Sanur, Bali
Email: wsanjaya@coraltrianglecenter.org
www.coraltrianglecenter.org
www.savingoceansnow.com

CORAL TRIANGLE CENTER

Inspiring People Saving Oceans

NUSA LEMBONGAN MANGROVE FOREST

COMMUNITY CONSERVATION IN ACTION



© CTC

7 Benefits of Mangroves

- Mangroves buffer the coastline from damaging storms, waves and wind, preventing erosion. This is important as sea levels rise and weather events get more extreme.
- Below the water, mangroves provide critical breeding and nursery grounds for marine species like crabs, shrimps, sea snails and even reef fish, which migrate to coral reefs when mature.
- Local communities can sustainably harvest marine animals living in the mangroves for food and income.
- Mangroves are powerhouses when it comes to storing carbon, thus they play a significant role in helping to mitigate climate change. Carbon is stored in the wood and soil beneath mangrove forests and can stay there for thousands of years.
- Above the water, mangrove trees provide habitats for birds, insects, mammals and reptiles.
- Mangroves act as a sink for pollutants, and trap sediments which could impact adjacent ecosystems.
- Mangroves may help some species of coral that grow near them to fight bleaching, by providing shade when sea water temperatures increase.

© Wira Sanjaya / CTC

Did You Know?

Indonesia has the largest area of mangrove forests in the world. However, in the last 30 years Indonesia's mangroves have been threatened, cut down to make way for agriculture, aquaculture (shrimp and fish ponds), salt farms and urban development, and impacted by pollution. Various initiatives are underway to restore mangrove forests, bringing together local communities, non-government organizations, researchers and government agencies.

© Rili Djohani / CTC


© Eaz Eryanda


© Rili Djohani / CTC

Nusa Lembongan Mangrove Forest

The Nusa Penida Marine Protected Area (MPA) is home to diverse coastal and marine ecosystems. The mangrove forests on Nusa Lembongan are a crucial part of the MPA, creating habitats for animals, providing resources for local communities, and shielding the coast from storm surges.

Mangroves are small trees and shrubs that thrive on coastal shores, rivers and estuaries in the tropics. They are very tough, and can survive in salty, low-oxygen soil. Some mangroves have special 'breathing roots', like snorkels, so they can cope with daily tidal flooding.

There are 230 hectares of mangrove forests on Nusa Lembongan, with 13 different species of mangroves. Species found include spotted mangrove (Rhizophora stylosa), cedar mangrove (Xylocarpus granatum) and large-fruited orange mangrove (Bruguiera gymnorhiza).

These mangroves provide breeding and nursery grounds for marine species like fish, crabs and shrimps. They also provide food and shelter for land and water birds, like the common sandpiper, purple heron, pink-necked pigeon, cerulean kingfisher, and the spotted kestrel.

"Our group, Surya Mandiri is involved in many activities in the Nusa Penida Marine Protected Area, especially to raise the awareness of the community on the benefits of our environment, especially the environment around the mangroves. Since this community group has been established there are lots of changes and benefits for the community. In the past, there were lots of people who cut the mangroves down, but now because of the Nusa Penida MPA and the formation of our community group, the community is aware of the importance of these mangrove forests."

"We also encourage our members to take care of the environment. If one of our members is guiding tourists on a mangrove tour and sees some trash, they will collect it and help to keep the mangroves healthy."


Wayan Sukitra,
Community Leader

Communities Protecting Mangroves for the Future


© CTC

In the past, Nusa Lembongan's residents cut down the mangroves for wooden stakes, which they used in seaweed cultivation, and for firewood in the production of salt. Mangroves also form part of traditional diets, with mangrove fruit added to rice or corn, or baked into cakes. Many mangrove trees were also cut down to make way for new housing or tourism developments.

In 2006 the local community in Jungut Batu village started an ecotourism venture, running tours of the mangroves with the support of the Coral Triangle Center (CTC). CTC provided them with training on how to organize and manage eco-tours.

Now known as Surya Mandiri, the group is growing with over 100 members. Their work is shared, so everyone in the village can earn an income. Members get together once a month to clean up the mangrove forests, removing rubbish and keeping them healthy.

The mangrove forests are now protected under the authority of the Government of Indonesia's Ministry of Forestry. The local people in Jungut Batu and Lembongan villages have also created local rules, or awig awig, to protect the mangroves and ban harvesting.

Another community group in Nusa Lembongan, Satya Posana Nusa, runs a small mangrove nursery on the western side of the island. The group teaches local school children and tourists about the environment, and works with them to grow seedlings and replant mangroves. They have shown communities the value of protecting these ecosystems, inspiring them to look after their mangrove forests.